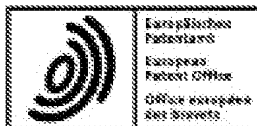


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(71) Applicant: Biosite Incorporated
San Diego, CA 92121 (US)

(72) Inventors:
• Valkirs, Gunars E.
Escondido, CA 92025 (US)
• Dahlen, Jeffrey R.
San Diego, CA 92126 (US)
• Kirchick, Howard
San Diego, CA 92121 (US)
• Buechler, Kenneth F.
Rancho Santa Fe, CA 92067 (US)

(74) Representative: Viering, Jentschura & Partner
Postfach 22 14 43
80504 München (DE)

(54) Diagnostic markers of acute coronary syndromes and methods of use thereof

(57) The present invention relates to a method of diagnosing myocardial ischemia in a patient, the method comprising: determining a level of N-terminal B-type natriuretic peptide (NT pro-BNP) in a sample obtained from said patient; determining a level of at least two further diagnostic markers in a sample obtained from said patient, wherein one of the at least two further diagnostic markers is an inflammatory marker and the other one of

the at least two further diagnostic markers is an ischemic marker, and correlating the level of NT pro-BNP and of said at least two further diagnostic markers to the presence or absence of myocardial ischemia in said patient. The invention also relates to kit for diagnosing myocardial ischemia in a patient and/or for determining a prognosis of a patient diagnosed with acute coronary syndrome.

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EUROPEAN SEARCH REPORT

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EP 06 08 2477

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	HUNT P J ET AL: "IMMUNOREACTIVE AMINO-TERMINAL PRO-BRAIN NATRIURETIC PEPTIDE (NT-PROBNP): A NEW MARKER OF CARDIAC IMPAIRMENT" CLINICAL ENDOCRINOLOGY, BLACKWELL SCIENTIFIC PUBLICATIONS, OXFORD, GB, vol. 47, 1997, pages 287-296, XP000913471 ISSN: 0300-0664 * abstract * * page 287, column 2, paragraph 3 * * page 294, column 2, last paragraph * * page 295, column 1, last paragraph * * page 293, column 2, paragraph 3 *	1-11	INV. G01N33/53 G01N33/68
A	SAGNELLA G A: "Measurement and significance of circulating natriuretic peptides in cardiovascular disease." CLINICAL SCIENCE (LONDON, ENGLAND : 1979) NOV 1998, vol. 95, no. 5, November 1998 (1998-11), pages 519-529, XP009052621 ISSN: 0143-5221 * abstract; table 1 * * page 522, column 2, paragraph 2 *	1-11	TECHNICAL FIELDS SEARCHED (IPC) G01N
P,A	SASATINE MARC S ET AL: "Multimarker approach to risk stratification in non-ST elevation acute coronary syndromes: Simultaneous assessment of troponin I, C-reactive protein, and B-type natriuretic peptide" CIRCULATION, AMERICAN HEART ASSOCIATION, DALLAS, TX, US, vol. 105, no. 15, 16 April 2002 (2002-04-16), pages 1760-1763, XP002262207 ISSN: 0869-7322 * abstract *	1-11	
-/-			
The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Searcher
Munich		9 August 2007	Bigot-Maucher, Cora
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if considered with another document of the same category A : technological background O : non-written disclosure P : intermediate document		1 : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date O : document cited in the application L : document cited for other reasons 2 : member of the same patent family, corresponding document	

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Office

EUROPEAN SEARCH REPORT

Application Number
EP 06 08 2477

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indications, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
E	WO 02/063913 A (BIO SITE DIAGNOSTICS, INC; DAHLEN, JEFFREY, R; VALKERS, GUNARS, E; BUFC) 24 October 2002 (2002-10-24) * abstract; claims 11,16,17,20,21 * * page 7, paragraph 2 - page 8, paragraph 2 * * page 1, paragraph 1 *	2-11	
T	JAMES STEFAN K ET AL: "N-terminal pro-brain natriuretic peptide and other risk markers for the separate prediction of mortality and subsequent myocardial infarction in patients with unstable coronary artery disease: a Global Utilization of Strategies To Open occluded arteries (GUSTO)-IV substudy." CIRCULATION 22 JUL 2003, vol. 108, no. 3, 22 July 2003 (2003-07-22), pages 275-283, XP002445654 ISSN: 1524-4539 * abstract *	1-11	
The present search report has been drawn up for all claims			TECHNICAL FIELD SEARCHED (IPC)
Place of search		Date of completion of the search	Classifier
Munich		9 August 2007	Sigot-Mauchner, Cora
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background G : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date O : document cited in the application L : document cited for other reasons S : member of the same patent family, corresponding document</p>			

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ON EUROPEAN PATENT APPLICATION NO.

EP 06 00 2477

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09-08-2007

Patent document cited in search report	Publication date	Patent family members)	Publication date
WD 02083913 A	24-10-2002	AU 2007201180 A1	19-04-2007
		CA 2412648 A1	24-10-2002
		EP 1311701 A1	21-05-2003
		JP 3749225 B2	22-02-2006
		JP 2004519688 T	02-07-2004
		JP 2005049351 A	24-02-2005
		NZ 523210 A	27-04-2007
		US 2004171064 A1	02-09-2004
		US 2003022235 A1	30-01-2003

For more details about this annex : see Official Journal of the European Patent Office, No. 12/02